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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,724	07/15/2003	Ikuya Kurosaki	TAKIT-182	7419
23599	7590	04/27/2005	EXAMINER	
MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201			YEE, DEBORAH	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,724

Applicant(s)

IKUYA KUROSAKI ET AL

Examiner

Deborah Yee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11-10-03, 7-02-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. The recitation "Cu-S type precipitates" is indefinite. Note that the addition of the word "type" to an otherwise definite expression is held to be indefinite because it is unclear what "type" was intended to convey, see MPEP 2173.05©.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 to 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 406057383.
6. The English abstract of JP'383 teaches an Fe-Ni or Fe-Ni-Co alloy material having a composition with constituents whose wt% ranges overlap those recited by the claims; such overlap establishes a prima facie case of obviousness because it would be obvious to one of ordinary skill in the art to select the claimed alloy ranges from the

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broader disclosure of the prior art because the prior art has the same utility (shadow mask) . See MPEP 2144.05.

7. More specifically, alloy 17 of JP'383 on pages 7 and 8 meet the claimed composition and on page 11 is processed by annealing at 810C (within the claimed annealing temperature range of 650 to 1000C) for 30 minutes.

8. Even though JP'383 does not teach MnS or CuS as recited by the claims, such would be expected since composition and process limitations are closely met and in absence of proof to the contrary.

9. Also the English abstract of JP'383 teaches adding Nb in amounts of less than 0.25% and hence overlaps applicant's Nb range of 0.1 to 1.0% recited by claims 3 and 4.

10. Claims 1, 3, 5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese patent 2001335894 alone or in view of Japanese patent 406057383

11. The English abstract of JP'894 discloses an Fe-Ni alloy material having a composition with constituents whose wt% ranges overlap those recited by the claims; such overlap establishes a prima facie case of obviousness because it would be obvious to one of ordinary skill in the art to select the claimed alloy ranges from the broader disclosure of the prior art because the prior art has the same utility (shadow mask) and similar property of improved etching . See MPEP 2144.05.

12. More specifically, prior art alloy 35 in Table 1 on page 46 meets the claimed composition, and is processed by annealing at 600-1200C (overlaps 600-1000C), see paragraph 36 on page 6.

13. Also similar to applicants, the English abstract of JP'894 teaches the presence of MnS at more than 1,500 pieces/mm² (overlaps at least 2,000 pieces/mm²) at a diameter of 0.05 to 1 microns (overlaps 0.01 to 3 microns).

14. Even though CuS recited by the claim is not taught by prior art, such would be expected since composition and process limitations are closely met and in absence of proof to the contrary.

15. Even though Nb is not taught, such would not be patentable difference since it is a common additive to include in Fe-Ni alloys for shadow masks as evident of JP'383, and hence would an obvious modification to incorporate in to the JP'894 alloy.


16. The unapplied references have been cited to further depict the state of the art in Fe-Ni alloys for shadow mask.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on Monday-Friday from 6:00 to 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Deborah Yee
Primary Examiner
Art Unit 1742

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